



secondary standard after gelling the mixture is at least approximately equal to the fluorescent signal of a known concentration of the dye under the conditions of the analyte sample measurement.

Claim 19 (Original): The process of claim 18, wherein step (a) comprises the steps of:

- (i) mixing the viscosity changing polymers and the dye; and
- (ii) dispensing the mixture into the container.

Claim 20 (Original): The process of claim 18, wherein the viscosity of the viscosity changing polymer being dispensed ranges from about 1 to about 1,000 cP.

Claim 21 (Original): The process of claim 18, wherein the viscosity changing polymer is a pH responsive polymer.

Claim 22 (Original): The process of claim 21, wherein step (b) comprises increasing the pH of the mixture sufficiently to gel the mixture.

Claim 23 (Original): The process of claim 22, wherein the mixture in step (a) has a pH of less than about 4.5 and step (b) comprises increasing the pH to at least about 5.

Claim 24 (Original): The process of claim 22, wherein step (b) comprises diffusing an alkaline gas through the mixture.

Claim 25 (Original): The process of claim 24, wherein the alkaline gas is ammonia gas.

Claim 26 (Original): The process of claim 22, further comprising the step of:

- (c) neutralizing the gel formed in step (b) to a pH of from about 6 to about 8.

Claim 27 (Original): The process of claim 18, wherein the viscosity of the viscosity changing polymer in the gel in step (b) is at about 10,000 cP.

Claim 28 (Currently Amended): A method for calibrating an instrument comprising the step of calibrating the instrument with a secondary standard for subsequent measurement of an analyte sample, the standard comprising:

- (a) one or more viscosity changing polymers; and
- (b) at least one dye ~~in an amount effective to simulate a known amount of analyte~~, wherein the concentration of the dye is adjusted such that the fluorescent signal of the dye in the secondary standard after gelling the mixture is at least approximately equal to the fluorescent signal of a known concentration of the dye under the conditions of the analyte sample measurement.

Claim 29 (Original): The method of claim 28, wherein the instrument is a spectrometer, multi-well plate reader, or imager.

Claim 30 (Previously Presented): The process of claim 17 consisting essentially of:

- (a) mixing one or more viscosity changing polymers and at least one dye; and
- (b) gelling the mixture.

Claim 31 (Previously Presented): The process of claim 18 consisting essentially of:

- (a) dispensing one or more viscosity changing polymers and at least one dye into a container to form a mixture; and
- (b) gelling the mixture.

Claim 32 (Canceled).